

<110> Rosen et al.

<120> 25 Human secreted proteins

<130> PZ042P1

<140> Unassigned

<141> 2001-02-13

<150> PCT/US00/22325

<151> 2000-08-16

<150> 60/149,182

<151> 1999-08-17

<160> 86

<170> PatentIn Ver. 2.0

<210> 1

<211> 733

<212> DNA

<213> Homo sapiens

<400> 1

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tctcccggac	tcctgaggtc	acatgcgtgg	tggtggacgt	aagccacgaa	gaccctgagg	180
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catcccggga	tgagctgacc	aagaaccagg	tcagcctgac	ctgcctggtc	aaaggcttct	480
atccaagcga	catcgccgtg	gagtgggaga	gcaatgggca	gccgggagaac	aactacaaga	540
ccacgcctcc	cgtgctggac	tccgacggct	ccttcttctc	ctacagcaag	ctcaccgtgg	600
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<210> 2

<211> 5

<212> PRT

<213> Homo sapiens

<220>

<221> Site

<222> (3)

<223> Xaa equals any of the twenty naturally occurring L-amino acids

<400> 2

Trp Ser Xaa Trp Ser

1

5

<210> 3

<211> 86

<212> DNA
<213> Artificial Sequence

<220>

<221> Primer_Bind

<223> Synthetic sequence with 4 tandem copies of the GAS binding site found in the IRF1 promoter (Rothman et al., Immunity 1:457-468 (1994)), 18 nucleotides complementary to the SV40 early promoter, and a Xho I restriction site.

<400> 3

gcgcctcgag atttccccga aatctagatt tccccgaaat gatttccccg aaatgatttc 60
cccgaaatat ctgccatctc aattag 86

<210> 4

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<221> Primer_Bind

<223> Synthetic sequence complementary to the SV40 promoter; includes a Hind III restriction site.

<400> 4

gcggcaagct ttttgcaaag cctaggc 27

<210> 5

<211> 271

<212> DNA

<213> Artificial Sequence

<220>

<221> Protein_Bind

<223> Synthetic promoter for use in biological assays; includes GAS binding sites found in the IRF1 promoter (Rothman et al., Immunity 1:457-468 (1994)).

<400> 5

ctcgagattt ccccgaaatc tagatttccc cgaaatgatt tccccgaaat gatttccccg 60
aaatatctgc catctcaatt agtcagcaac catagtcccc cccctaactc cgcccatccc 120
gcccctaact ccgcccagtt ccgcccattc tccgcccacat ggctgactaa ttttttttat 180
ttatgcagag gccgaggccg cctcggcctc tgagctattc cagaagtagt gaggaggctt 240
ttttggaggc ctaggctttt gcaaaaagct t 271

<210> 6

<211> 32

<212> DNA

<213> Artificial Sequence

<220>

<221> Primer_Bind

<223> Synthetic primer complementary to human genomic EGR-1 promoter sequence (Sakamoto et al., Oncogene 6:867-871 (1991)); includes a Xho I restriction site.

<400> 6
gcgctcgagg gatgacagcg atagaacccc gg 32

<210> 7
<211> 31
<212> DNA
<213> Artificial Sequence

<220>
<221> Primer_Bind
<223> Synthetic primer complementary to human genomic EGR-1 promoter sequence (Sakamoto et al., Oncogene 6:867-871 (1991)); includes a Hind III restriction site.

<400> 7
gcgaagcttc gcgactcccc ggatccgcct c 31

<210> 8
<211> 12
<212> DNA
<213> Homo sapiens

<400> 8
ggggactttc cc 12

<210> 9
<211> 73
<212> DNA
<213> Artificial Sequence

<220>
<221> Primer_Bind
<223> Synthetic primer with 4 tandem copies of the NF-KB binding site (GGGGACTTTCCC), 18 nucleotides complementary to the 5' end of the SV40 early promoter sequence, and a XhoI restriction site.

<400> 9
gcggcctcga ggggactttc ccggggactt tccggggact ttccgggact ttccatcctg 60
ccatctcaat tag 73

<210> 10
<211> 256
<212> DNA
<213> Artificial Sequence

<220>
<221> Protein_Bind
<223> Synthetic promoter for use in biological assays; includes NF-KB binding sites.

<400> 10
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caattagtcg gcaaccatag tcccggccct aactccgccc atcccggccc taactccgcc 120
cagttccgcc cattctccgc cccatggctg actaattttt tttatttatg cagaggccga 180

ggccgcctcg gcctctgagc tattccagaa gtagtgagga ggcttttttg gaggcctagg 240
cttttgcaaa aagctt 256

<210> 11
<211> 2854
<212> DNA
<213> Homo sapiens

<400> 11
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caatggctat gaaggcattg tcgttgcaat cgaccccaat gtgccagaag atgaaacact 180
cattcaacaa ataaaaggaca tggtgaccca ggcatctctg tatctgtttg aagctacagg 240
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acaaggtagg gcatttgtcc atgagtgggc tcatctacga tggggagtat ttgacgagta 540
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tgatgctact aaggatgacg gtgtctactc aaggtatttc acaacttatg acacgaatgg 2040
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ttttttttga ttataaaaaa aaaaaaaaaa aaaa 2854

<210> 12
 <211> 1315
 <212> DNA
 <213> Homo sapiens

<400> 12

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aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	aaaaa	1315

<210> 13
 <211> 1699
 <212> DNA
 <213> Homo sapiens

<400> 13

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<210> 14

<211> 2149

<212> DNA

<213> Homo sapiens

<400> 14

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tcggtgactg	cccacttggc	cgcgaagtgg	cccagagccc	cgctgctgct	ggaggcaagt	240
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<210> 15

<211> 2102

<212> DNA

<213> Homo sapiens

<400> 15

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<212> DNA

<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

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<213> Homo sapiens

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<211> 1061

<212> DNA

<213> Homo sapiens

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<211> 2005

<212> DNA

<213> Homo sapiens

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<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

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<210> 32

<211> 2016

<212> DNA

<213> Homo sapiens

<400> 32

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<210> 33

<211> 1984

<212> DNA

<213> Homo sapiens

<400> 33

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<210> 34

<211> 2487

<212> DNA

<213> Homo sapiens

<400> 34

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<211> 2468

<212> DNA

<213> Homo sapiens

<400> 35

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<211> 868
 <212> DNA
 <213> Homo sapiens

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ctgaactgta	cattcacac	ttatgtttct	ttgagattaa	tagatattgg	gggaaaaacg	840
cctttttagg	aaaattatag	tgaaaatttg	acagttgatt	ggcataattt	cttgtttgaa	900
tgctgcctcc	attatatagg	tccttcagg	aactcaaaca	ctgtaagtga	aatatgggag	960
tatagttttt	atattttctt	ttttcctttt	ggtttcataa	tataccgcag	tttgttcagn	1020
cngatcagna	caaagcctga	tagtacttta	ctaaaatgac	tgcattcttt	ggattccttc	1080
agtctatggt	tcaagtcact	aaagattcat	ttttgttgag	tcctcatgag	aaacagcagt	1140
atgaatcttg	acggtttctg	ccggtcctaa	tggcagncct	ctctgacttg	ggtgtatgct	1200
gccaggctgg	gtactttcat	actttgtttt	cttgttttgc	tttaaaacta	cgactcagca	1260
tacattttcc	cacatacatt	tttacattgt	accttaggac	tcagtcatct	ccacttaaat	1320
tgatgacaca	agcagctaat	aaccatttct	gggtttctgc	ctaaccctct	aattgtctgt	1380
taaagccaat	tctctgggtg	tcccagtgag	tggtgggctt	tttttctttt	cacattggca	1440
cattcacttc	ttccactctt	ggcatgtaag	aaataagcat	ttacataatt	gggaaaaatn	1500
tggattttctg	atgccaaaag	gttaaagctt	cttggatttc	atttcattga	tatacagcca	1560
ctatttttatt	tttgatcagt	ggcctttggg	ccactgttca	gggtactgac	catcagtgtc	1620
agcatttaggg	ttttgggttt	tgtttctttt	gggtctttct	tttttggcac	atgtgaatct	1680
tgttttgtgt	aaaatgaaat	tactttctct	tgttctctga	tgatgggttt	aaaattaaaa	1740
gagcatccgg	ttttgggtatg	gggatgatcc	aggattatgt	tgtagctgat	acataattagt	1800
tacttgtgct	tttttttttt	tttttggatc	tttgcaaggg	caaaactaca	agtaacgagt	1860
tttatataat	taattttaaat	ttgttacagg	ttttcatggt	caggataaac	catacttcca	1920
cottgggtga	gaacacttgc	aacagtttat	taatgagggtg	actttcncct	taggacaact	1980
gttgcacatg	aagttttttg	tgtgtgtgaa	acacttcaaa	actgatttaa	aagatgtaaa	2040
tttaaaattg	gttgtatcta	atatgcccc	ggttcggtta	ataaacaatt	cttttttaaaa	2100
aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa		2150

<210> 38

<211> 808

<212> DNA

<213> Homo sapiens

<400> 38

cggcggtctgt	ggaggccgca	gtccgggtcc	tggcttcggc	ctcagcccca	ccatggtgac	60
gcttgctgaa	ctgctgggtc	tcctggccgc	tctcctggcc	acgggtctcg	gctatttcgt	120
tagcatcgac	gcccagctg	aagagtgcct	ctttgagcgg	gtcacctcgg	gcaccaagat	180
gggcctcatc	ttcgagggtg	cggaggggcg	cttcctggac	atcgacgtgg	agattacagg	240
accagataac	aaaggaattt	acaaaggaga	cagagaatcc	agtgggaaat	acacatttgc	300
tgctcacatg	gatggaacat	acaaattttg	tttttagtaac	cggatgtcca	ccatgactcc	360
aaaaatagtg	atgttcacca	ttgatattgg	ggagggtcca	aaaggacaag	atatggaaac	420
agaagctcac	cagaacaagc	tagaagaaat	gatcaatgag	ctagcagtg	cgatgacagc	480
tgtaaagcac	gaacaggaat	acatgggaat	ccgggagaga	atacacagag	ccatcaacga	540

caacacaaac	agcagagtgg	tccttttggtc	cttcttttgaa	gctcttggtc	tagttgccat	600
gacattggga	cagatctact	acctgaagag	atthttttgaa	gtccggagag	ttgttttaaaa	660
agcctcttcc	tgatgatccc	aactcagaat	tcactgttta	ccaaacacct	tggtcataat	720
aatgtcatta	gtttctccat	ttttattttc	tgaactgtac	attcccaact	tatgtttctt	780
tgagattaat	agatattggg	ggaaaaaa				808

<210> 39

<211> 1170

<212> DNA

<213> Homo sapiens

<400> 39

gctcctgggc	ctcacaaagt	gttgggatta	caggtatgag	ccacggcacc	tggcctgggc	60
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gggctccagc	ctggctttca	ttctgtttct	cccctgaaac	aacattcctt	tagtaatatt	180
ccgaataaca	gcttcatcag	tctgtctacc	gaccactctt	caggcttcat	cttatatgac	240
ctcccaaact	gcactaaggg	ttgtattaga	gaaaagtggg	ttaaagttcgg	agtcaggctg	300
cttgagctta	aatgccagct	tcacttacca	gccacctgac	catgagtcag	ctgcttaacc	360
attctttgcc	acagtttcc	tgtctatgaa	aagggaaatg	gctcccacct	caaaaagttg	420
ttaacattaa	attcaatcat	gtattcaaag	tcctgagcag	aatgtctggc	catgactggg	480
acttaacaga	tgtagcatt	tattattagt	atctgtcagt	cttgaaatgt	tctcttcctt	540
tggctttcat	gacattccac	actctcctgg	ttttctctta	cctctctggg	aatacctggt	600
tgcttatcct	tctttgtoca	gctctgggat	gttaccattc	cttcaggcgt	gctgttttct	660
ccttaggcag	tcttacacac	actcatgact	tccttccatt	gtcctccaca	caactgatgac	720
cctaaaatca	gtatctccag	cctaaacctt	tcactgagt	tctagaccca	tatgttgtag	780
tatcaaacctg	gcttgtccat	ttgaatgtct	tcaggcact	tcagactctc	ttctctagac	840
tttgctggac	tttcaactct	ccccctaaaa	ctggctcctc	ttccactgaa	acatgtatgt	900
cattgagagg	caccaccatc	caccagtgcc	ctaagccaga	aacctaggaa	tccttgatac	960
ctgttctctc	tcactcctga	tatccaagcc	tatcagtttt	atctctaaat	tatatttttg	1020
taggtttact	tctttccttt	tctcccacca	ccacctgct	ccaagctacc	atcatctcac	1080
ccagagggtg	cagtgaagcc	agatcacgcc	actgcactcc	agcctggtga	cagagtaaga	1140
ctccatctca	aaaaaaaa	aaaaaaaa				1170

<210> 40

<211> 523

<212> DNA

<213> Homo sapiens

<220>

<221> SITE

<222> (502)

<223> n equals a,t,g, or c

<400> 40

gaattcggca	cgaggcrgsg	cggcggcgcc	ggcgggcgcc	gcggtgtggg	aggccgcagt	60
cgggttcctg	gcttcggcct	cagccccacc	atggtgacgc	ttgctgaact	gctggtgctc	120
ctggcgctgc	tcctggccac	ggtctcgggc	tatttcgtta	gcacgcagcc	ccatgctgaa	180
gagtgccttc	ttgagcgggt	cacctcgggc	accaagatgg	gcctcatctt	cgagggtggc	240
gagggcggct	tcctggacat	cgacgtggag	gtgcgggcta	gctgcccga	gctgaggctt	300
ggtcgcgtgg	ccactcgggg	attggtggca	cctgggaccg	gcgcggggcc	tgtgtgggga	360
gtgggcttgg	aagtgcgtgt	ccgagtcctg	gagaagccca	ggccggccacc	ccccggcccg	420
ccccggccac	ggcgacctcc	taacggcccc	ttttcccgcg	acttgccctg	gttccgggat	480
cccttggggg	ctccttcggc	angcttgggt	gctttggggt	ttc		523

<210> 41

<211> 2505
 <212> DNA
 <213> Homo sapiens

<400> 41

cttatagtga	tgaggtacct	ctttgccttc	ctcaatcatc	tatcacagta	cagcgatgag	60
aatatgatgg	accctataac	ctggccattt	gctttggccc	aacattgatg	cctgtcccag	120
aaatacagga	tcaagtgtct	tgccaggcac	atgtgaatga	aattatcaaa	accatcatca	180
tccaccatga	gactattttc	ccagatgcta	aagagctgga	tggccctgtt	tatgagaaat	240
gtatggctgg	agatgactat	tgcgacasc	atacagttag	cacggtagat	tggaggaaat	300
ggaccaagat	gctggtacag	agccccacac	aagtgaagat	gaatgtgagc	caatagaagc	360
aatagccaag	tttgactatg	ttggggcggtc	cgccagagaa	ctatccttca	agaagggtgc	420
ctccctgctg	ctgtatcacc	gtgcatctga	ggactggtgg	gaaggcaggc	acaacgggat	480
tgacgggctg	gtgcctcacc	agtatatagt	gggtgcaggat	atggatgata	cgttttcaga	540
cactctgagc	caaaaagccg	acagttaggc	cagcagtggtg	ccagtcacgg	aagacaagtc	600
ctcatccaag	gacatgaact	ccccgacaga	ccgtcatcct	gacggctatt	tagccaggca	660
acgaaaaaga	ggagagccac	ccccctcag	aaggcgctcct	ggcaggacca	gtgatggcca	720
ttgcccgtc	caccctccac	atgccttttc	taactcctca	gttgacctag	ggtccccaag	780
ccttgccagt	cacccccggg	gctgctgca	gaaccgtggc	ctcaacaatg	acagtcctga	840
gcgagggcg	aggcctggcc	atggcagcct	gaccaacatc	agccggcacg	actccctcaa	900
gaagatcgac	agccctccca	ttagaagggtc	cacgtcatca	gggcaatata	cgggcttcaa	960
tgaccacaag	ccactggacc	cagagacaat	tgctcaggat	attgaagaaa	cgatgaacac	1020
agctttgaat	gaactccgag	aactggagag	acagagcaca	gcaaagcatg	cccctgatgt	1080
ggtgctggat	accctggagc	aagtgaaaaa	ctctcccacc	cctgccactt	ccacggaatc	1140
tctcagccct	ttgcacaacg	ttgccctcag	gagctccgag	cctcagattc	gacgtagcac	1200
gagctcctcc	agtgcacaaa	tgagtacttt	caagcctatg	gtggcaccga	gaatgggcgt	1260
gcagctgaag	cctccagccc	ttaggccaaa	acctgctgtt	cttccaaaaa	caaatoctac	1320
cataggacct	gccccacctc	cccagggtcc	aacagacaag	tcatgcacaa	tgtaaaaaac	1380
agccaagcaa	ggccataaag	ggaggtgact	taaaaaagaa	aatggattag	tgacaaaagt	1440
cactgatccw	taactttcct	tagttttgtg	cttataactg	gagatctttt	ggcttttcta	1500
tgttgctgaa	tgtaatgtct	gagactagct	aaattaacac	gggcattttg	attttgtaat	1560
tttttttaaa	aactggacat	atgtcatttt	aaggacaata	gaaacactta	gacttacttg	1620
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gaatgccaca	cctcattgga	gtatagccag	tggtggtctg	tggcacttgg	gctgaaaggt	1800
gataatggca	ttgcgtggta	gctgacaatg	agcaccttcg	gttccatgtg	gagcgggggt	1860
tagctcatgc	aaaagacttg	caattgtctc	catgggacga	tcccagtggt	actgtcagcc	1920
cacagctcga	gtgggttgga	tgcttgccctc	tttcctaaca	gttatttccc	cgggtccagc	1980
ttaaagactc	gatggaagga	ggtagaacct	ctgctgttac	tgcttgaact	taacctggga	2040
aaggagagga	agacaccatc	tccaaagcta	ttaatgtcac	tcctttttgcg	agcatgatta	2100
ggccccggag	atttccaagt	cccccatctc	acacttacaa	acgattagaa	gggttttaatt	2160
ttaaagactt	tctggttaca	ctactccacg	aactcctcca	aagatccgtt	attcaataac	2220
tgccatgaaa	atgtttccat	ctcctctaaa	tccctgtgtt	ctcctctgtg	gaaatgaagg	2280
cagcaagaag	cacctgaggc	cttggtttcat	gcagtgttct	cttttgacta	aatcacctag	2340
gttcctttta	acatgctaca	aagcccaggc	atggtggtgc	acacctgtac	tcccagctac	2400
tcgggtgggt	tacacaggag	gatggctttg	ggcctagtag	ttcgagtcca	gcctgggcag	2460
catagtgtga	gaccctgtct	cttaaaaaaa	aaaaaaaaaa	ctcga		2505

<210> 42
 <211> 914
 <212> PRT
 <213> Homo sapiens

<400> 42

Met Gly Pro Phe Lys Ser Ser Val Phe Ile Leu Ile Leu His Leu Leu

1

5

10

15

Glu Gly Ala Leu Ser Asn Ser Leu Ile Gln Leu Asn Asn Asn Gly Tyr
 20 25 30
 Glu Gly Ile Val Val Ala Ile Asp Pro Asn Val Pro Glu Asp Glu Thr
 35 40 45
 Leu Ile Gln Gln Ile Lys Asp Met Val Thr Gln Ala Ser Leu Tyr Leu
 50 55 60
 Phe Glu Ala Thr Gly Lys Arg Phe Tyr Phe Lys Asn Val Ala Ile Leu
 65 70 75 80
 Ile Pro Glu Thr Trp Lys Thr Lys Ala Asp Tyr Val Arg Pro Lys Leu
 85 90 95
 Glu Thr Tyr Lys Asn Ala Asp Val Leu Val Ala Glu Ser Thr Pro Pro
 100 105 110
 Gly Asn Asp Glu Pro Tyr Thr Glu Gln Met Gly Asn Cys Gly Glu Lys
 115 120 125
 Gly Glu Arg Ile His Leu Thr Pro Asp Phe Ile Ala Gly Lys Lys Leu
 130 135 140
 Ala Glu Tyr Gly Pro Gln Gly Arg Ala Phe Val His Glu Trp Ala His
 145 150 155 160
 Leu Arg Trp Gly Val Phe Asp Glu Tyr Asn Asn Asp Glu Lys Phe Tyr
 165 170 175
 Leu Ser Asn Gly Arg Ile Gln Ala Val Arg Cys Ser Ala Gly Ile Thr
 180 185 190
 Gly Thr Asn Val Val Lys Lys Cys Gln Gly Gly Ser Cys Tyr Thr Lys
 195 200 205
 Arg Cys Thr Phe Asn Lys Val Thr Gly Leu Tyr Glu Lys Gly Cys Glu
 210 215 220
 Phe Val Leu Gln Ser Arg Gln Thr Glu Lys Ala Ser Ile Met Phe Ala
 225 230 235 240
 Gln His Val Asp Ser Ile Val Glu Phe Cys Thr Glu Gln Asn His Asn
 245 250 255
 Lys Glu Ala Pro Asn Lys Gln Asn Gln Lys Cys Asn Leu Arg Ser Thr
 260 265 270
 Trp Glu Val Ile Arg Asp Ser Glu Asp Phe Lys Lys Thr Thr Pro Met
 275 280 285
 Thr Thr Gln Pro Pro Asn Pro Thr Phe Ser Leu Leu Gln Ile Gly Gln
 290 295 300
 Arg Ile Val Cys Leu Val Leu Asp Lys Ser Gly Ser Met Ala Thr Gly
 305 310 315 320
 Asn Arg Leu Asn Arg Leu Asn Gln Ala Gly Gln Leu Phe Leu Leu Gln

	325		330		335
Thr Val Glu Leu Gly Ser Trp Val Gly Met Val Thr Phe Asp Ser Ala	340		345		350
Ala His Val Gln Ser Glu Leu Ile Gln Ile Asn Ser Gly Ser Asp Arg	355		360		365
Asp Thr Leu Ala Lys Arg Leu Pro Ala Ala Ala Ser Gly Gly Thr Ser	370		375		380
Ile Cys Ser Gly Leu Arg Ser Ala Phe Thr Val Ile Arg Lys Lys Tyr	385		390		395
Pro Thr Asp Gly Ser Glu Ile Val Leu Leu Thr Asp Gly Glu Asp Asn	405		410		415
Thr Ile Ser Gly Cys Phe Asn Glu Val Lys Gln Ser Gly Ala Ile Ile	420		425		430
His Thr Val Ala Leu Gly Pro Ser Ala Ala Gln Glu Leu Glu Glu Leu	435		440		445
Ser Lys Met Thr Gly Gly Leu Gln Thr Tyr Ala Ser Asp Gln Val Gln	450		455		460
Asn Asn Gly Leu Ile Asp Ala Phe Gly Ala Leu Ser Ser Gly Asn Gly	465		470		475
Ala Val Ser Gln Arg Ser Ile Gln Leu Glu Ser Lys Gly Leu Thr Leu	485		490		495
Gln Asn Ser Gln Trp Met Asn Gly Thr Val Ile Val Asp Ser Thr Val	500		505		510
Gly Lys Asp Thr Leu Phe Leu Ile Thr Trp Thr Thr Gln Pro Pro Gln	515		520		525
Ile Leu Leu Trp Asp Pro Ser Gly Gln Lys Gln Gly Gly Phe Val Val	530		535		540
Asp Lys Asn Thr Lys Met Ala Tyr Leu Gln Ile Pro Gly Ile Ala Lys	545		550		555
Val Gly Thr Trp Lys Tyr Ser Leu Gln Ala Ser Ser Gln Thr Leu Thr	565		570		575
Leu Thr Val Thr Ser Arg Ala Ser Asn Ala Thr Leu Pro Pro Ile Thr	580		585		590
Val Thr Ser Lys Thr Asn Lys Asp Thr Ser Lys Phe Pro Ser Pro Leu	595		600		605
Val Val Tyr Ala Asn Ile Arg Gln Gly Ala Ser Pro Ile Leu Arg Ala	610		615		620
Ser Val Thr Ala Leu Ile Glu Ser Val Asn Gly Lys Thr Val Thr Leu	625		630		635
					640

Glu Leu Leu Asp Asn Gly Ala Gly Ala Asp Ala Thr Lys Asp Asp Gly
 645 650 655
 Val Tyr Ser Arg Tyr Phe Thr Thr Tyr Asp Thr Asn Gly Arg Tyr Ser
 660 665 670
 Val Lys Val Arg Ala Leu Gly Gly Val Asn Ala Ala Arg Arg Arg Val
 675 680 685
 Ile Pro Gln Gln Ser Gly Ala Leu Tyr Ile Pro Gly Trp Ile Glu Asn
 690 695 700
 Asp Glu Ile Gln Trp Asn Pro Pro Arg Pro Glu Ile Asn Lys Asp Asp
 705 710 715 720
 Val Gln His Lys Gln Val Cys Phe Ser Arg Thr Ser Ser Gly Gly Ser
 725 730 735
 Phe Val Ala Ser Asp Val Pro Asn Ala Pro Ile Pro Asp Leu Phe Pro
 740 745 750
 Pro Gly Gln Ile Thr Asp Leu Lys Ala Glu Ile His Gly Gly Ser Leu
 755 760 765
 Ile Asn Leu Thr Trp Thr Ala Pro Gly Asp Asp Tyr Asp His Gly Thr
 770 775 780
 Ala His Lys Tyr Ile Ile Arg Ile Ser Thr Ser Ile Leu Asp Leu Arg
 785 790 795 800
 Asp Lys Phe Asn Glu Ser Leu Gln Val Asn Thr Thr Ala Leu Ile Pro
 805 810 815
 Lys Glu Ala Asn Ser Glu Glu Val Phe Leu Phe Lys Pro Glu Asn Ile
 820 825 830
 Thr Phe Glu Asn Gly Thr Asp Leu Phe Ile Ala Ile Gln Ala Val Asp
 835 840 845
 Lys Val Asp Leu Lys Ser Glu Ile Ser Asn Ile Ala Arg Val Ser Leu
 850 855 860
 Phe Ile Pro Pro Gln Thr Pro Pro Glu Thr Pro Ser Pro Asp Glu Thr
 865 870 875 880
 Ser Ala Pro Cys Pro Asn Ile His Ile Asn Ser Thr Ile Pro Gly Ile
 885 890 895
 His Ile Leu Lys Ile Met Trp Lys Trp Ile Gly Glu Leu Gln Leu Ser
 900 905 910
 Ile Ala

<210> 43

<211> 187

<212> PRT

<213> Homo sapiens

<400> 43

Met Val Ala Ala Thr Val Ala Ala Ala Trp Leu Leu Leu Trp Ala Ala
 1 5 10 15

Ala Cys Ala Gln Gln Glu Gln Asp Phe Tyr Asp Phe Lys Ala Val Asn
 20 25 30

Ile Arg Gly Lys Leu Val Ser Leu Glu Lys Tyr Arg Gly Ser Val Ser
 35 40 45

Leu Val Val Asn Val Ala Ser Glu Cys Gly Phe Thr Asp Gln His Tyr
 50 55 60

Arg Ala Leu Gln Gln Leu Gln Arg Asp Leu Gly Pro His His Phe Asn
 65 70 75 80

Val Leu Ala Phe Pro Cys Asn Gln Phe Gly Gln Gln Glu Pro Asp Ser
 85 90 95

Asn Lys Glu Ile Glu Ser Phe Ala Arg Arg Thr Tyr Ser Val Ser Phe
 100 105 110

Pro Met Phe Ser Lys Ile Ala Val Thr Gly Thr Gly Ala His Pro Ala
 115 120 125

Phe Lys Tyr Leu Ala Gln Thr Ser Gly Lys Glu Pro Thr Trp Asn Phe
 130 135 140

Trp Lys Tyr Leu Val Ala Pro Asp Gly Lys Val Val Gly Ala Trp Asp
 145 150 155 160

Pro Thr Val Ser Val Glu Glu Val Arg Pro Gln Ile Thr Ala Leu Val
 165 170 175

Arg Lys Leu Ile Leu Leu Lys Arg Glu Asp Leu
 180 185

<210> 44

<211> 346

<212> PRT

<213> Homo sapiens

<400> 44

Met Asp Pro Ala Arg Lys Ala Gly Ala Gln Ala Met Ile Trp Thr Ala
 1 5 10 15

Gly Trp Leu Leu Leu Leu Leu Arg Gly Gly Ala Gln Ala Leu Glu
 20 25 30

Cys Tyr Ser Cys Val Gln Lys Ala Asp Asp Gly Cys Ser Pro Asn Lys
 35 40 45

Met Lys Thr Val Lys Cys Ala Pro Gly Val Asp Val Cys Thr Glu Ala
 50 55 60

Val Gly Ala Val Glu Thr Ile His Gly Gln Phe Ser Leu Ala Val Arg
 65 70 75 80
 Gly Cys Gly Ser Gly Leu Pro Gly Lys Asn Asp Arg Gly Leu Asp Leu
 85 90 95
 His Gly Leu Leu Ala Phe Ile Gln Leu Gln Gln Cys Ala Gln Asp Arg
 100 105 110
 Cys Asn Ala Lys Leu Asn Leu Thr Ser Arg Ala Leu Asp Pro Ala Gly
 115 120 125
 Asn Glu Ser Ala Tyr Pro Pro Asn Gly Val Glu Cys Tyr Ser Cys Val
 130 135 140
 Gly Leu Ser Arg Glu Ala Cys Gln Gly Thr Ser Pro Pro Val Val Ser
 145 150 155 160
 Cys Tyr Asn Ala Ser Asp His Val Tyr Lys Gly Cys Phe Asp Gly Asn
 165 170 175
 Val Thr Leu Thr Ala Ala Asn Val Thr Val Ser Leu Pro Val Arg Gly
 180 185 190
 Cys Val Gln Asp Glu Phe Cys Thr Arg Asp Gly Val Thr Gly Pro Gly
 195 200 205
 Phe Thr Leu Ser Gly Ser Cys Cys Gln Gly Ser Arg Cys Asn Ser Asp
 210 215 220
 Leu Arg Asn Lys Thr Tyr Phe Ser Pro Arg Ile Pro Pro Leu Val Arg
 225 230 235 240
 Leu Pro Pro Pro Glu Pro Thr Thr Val Ala Ser Thr Thr Ser Val Thr
 245 250 255
 Thr Ser Thr Ser Ala Pro Val Arg Pro Thr Ser Thr Thr Lys Pro Met
 260 265 270
 Pro Ala Pro Thr Ser Gln Thr Pro Arg Gln Gly Val Glu His Glu Ala
 275 280 285
 Ser Arg Asp Glu Glu Pro Arg Leu Thr Gly Gly Ala Ala Gly His Gln
 290 295 300
 Asp Arg Ser Asn Ser Gly Gln Tyr Pro Ala Lys Gly Gly Pro Gln Gln
 305 310 315 320
 Pro His Asn Lys Gly Cys Val Ala Pro Thr Ala Gly Leu Ala Ala Leu
 325 330 335
 Leu Leu Ala Val Ala Ala Gly Val Leu Leu
 340 345

<210> 45

<211> 354

<212> PRT

<213> Homo sapiens

<400> 45

Met Ala Pro Ala Lys Ala Thr Asn Val Val Arg Leu Leu Leu Gly Ser
 1 5 10 15

Thr Ala Leu Trp Leu Ser Gln Leu Gly Ser Gly Thr Val Ala Ala Ser
 20 25 30

Lys Ser Val Thr Ala His Leu Ala Ala Lys Trp Pro Glu Thr Pro Leu
 35 40 45

Leu Leu Glu Ala Ser Glu Phe Met Ala Glu Glu Ser Asn Glu Lys Phe
 50 55 60

Trp Gln Phe Leu Glu Thr Val Gln Glu Leu Ala Ile Tyr Lys Gln Thr
 65 70 75 80

Glu Ser Asp Tyr Ser Tyr Tyr Asn Leu Ile Leu Lys Lys Ala Gly Gln
 85 90 95

Phe Leu Asp Asn Leu His Ile Asn Leu Leu Lys Phe Ala Phe Ser Ile
 100 105 110

Arg Ala Tyr Ser Pro Ala Ile Gln Met Phe Gln Gln Ile Ala Ala Asp
 115 120 125

Glu Pro Pro Pro Asp Gly Cys Asn Ala Phe Val Val Ile His Lys Lys
 130 135 140

His Thr Cys Lys Ile Asn Glu Ile Lys Lys Leu Leu Lys Lys Ala Ala
 145 150 155 160

Ser Arg Thr Arg Pro Tyr Leu Phe Lys Gly Asp His Lys Phe Pro Thr
 165 170 175

Asn Lys Glu Asn Leu Pro Val Val Ile Leu Tyr Ala Glu Met Gly Thr
 180 185 190

Arg Thr Phe Ser Ala Phe His Lys Val Leu Ser Glu Lys Ala Gln Asn
 195 200 205

Glu Glu Ile Leu Tyr Val Leu Arg His Tyr Ile Gln Lys Pro Ser Ser
 210 215 220

Arg Lys Met Tyr Leu Ser Gly Tyr Gly Val Glu Leu Ala Ile Lys Ser
 225 230 235 240

Thr Glu Tyr Lys Ala Leu Asp Asp Thr Gln Val Lys Thr Val Thr Asn
 245 250 255

Thr Thr Val Glu Asp Glu Thr Glu Thr Asn Glu Val Gln Gly Phe Leu
 260 265 270

Phe Gly Lys Leu Lys Glu Ile Tyr Ser Asp Leu Arg Asp Asn Leu Thr
 275 280 285

Ala Phe Gln Lys Tyr Leu Ile Glu Ser Asn Lys Gln Met Met Pro Leu
290 295 300

Lys Val Trp Glu Leu Gln Asp Leu Ser Phe Gln Ala Ala Ser Gln Ile
305 310 315 320

Met Ser Ala Pro Val Tyr Asp Ala Ile Lys Leu Met Lys Asp Ile Ser
325 330 335

Gln Asn Phe Pro Ile Lys Ala Arg Val Gln Met Ile Gly Asn Val Leu
340 345 350

Ile Gly

<210> 46

<211> 366

<212> PRT

<213> Homo sapiens

<400> 46

Met Ala Cys Leu Lys Thr Gln Arg Ala Pro Lys Ala Phe Leu Leu Leu
1 5 10 15

Pro Leu Leu Leu Tyr Phe Ala Gly Leu Ser Lys Leu Thr Gln Leu Gln
20 25 30

Val Cys Ser Gly Thr Asp Glu Asp Pro Asp Asp Lys Asn Ala Pro Phe
35 40 45

Arg Gln Arg Pro Phe Cys Lys Tyr Lys Gly His Thr Ala Asp Leu Leu
50 55 60

Asp Leu Ser Trp Ser Lys Asn Tyr Phe Leu Leu Ser Ser Ser Met Asp
65 70 75 80

Lys Thr Val Arg Leu Trp His Ile Ser Arg Arg Glu Cys Leu Cys Cys
85 90 95

Phe Gln His Ile Asp Phe Val Thr Ala Ile Ala Phe His Pro Arg Asp
100 105 110

Asp Arg Tyr Phe Leu Ser Gly Ser Leu Asp Gly Lys Leu Arg Leu Trp
115 120 125

Asn Ile Pro Asp Lys Lys Val Ala Leu Trp Asn Glu Val Asp Gly Gln
130 135 140

Thr Lys Leu Ile Thr Ala Ala Asn Phe Cys Gln Asn Gly Lys Tyr Ala
145 150 155 160

Val Ile Gly Thr Tyr Asp Gly Arg Cys Ile Phe Tyr Asp Thr Glu His
165 170 175

Leu Lys Tyr His Thr Gln Ile His Val Arg Ser Thr Arg Gly Arg Asn
180 185 190

Lys Val Gly Arg Lys Ile Thr Gly Ile Glu Pro Leu Pro Gly Glu Asn
195 200 205

Lys Ile Leu Val Thr Ser Asn Asp Ser Arg Ile Arg Leu Tyr Asp Leu
210 215 220

Arg Asp Leu Ser Leu Ser Met Lys Tyr Lys Gly Tyr Val Asn Ser Ser
225 230 235 240

Ser Gln Ile Lys Ala Ser Phe Ser His Asp Phe Thr Tyr Leu Val Ser
245 250 255

Gly Ser Glu Asp Lys Tyr Val Tyr Ile Trp Ser Thr Tyr His Asp Leu
260 265 270

Ser Lys Phe Thr Ser Val Arg Arg Asp Arg Asn Asp Phe Trp Glu Gly
275 280 285

Ile Lys Ala His Asn Ala Val Val Thr Ser Ala Ile Phe Ala Pro Asn
290 295 300

Pro Ser Leu Met Leu Ser Leu Asp Val Gln Ser Glu Lys Ser Glu Gly
305 310 315 320

Asn Glu Lys Ser Glu Asp Ala Glu Val Leu Asp Ala Thr Pro Ser Gly
325 330 335

Ile Met Lys Thr Asp Asn Thr Glu Val Leu Leu Ser Ala Asp Phe Thr
340 345 350

Gly Ala Ile Lys Val Phe Val Asn Lys Arg Lys Asn Val Ser
355 360 365

<210> 47

<211> 124

<212> PRT

<213> Homo sapiens

<400> 47

Met Arg Gln Val Ala Pro Ala Arg Arg Ala Gln Leu Glu His Ser Gly
1 5 10 15

Leu His Ala Ser Leu Cys Leu Leu Ser Leu Leu Ser Leu Leu Pro Thr
20 25 30

Leu Glu Ala Asn Met Ser Gly Phe His Gln Ala Pro Leu Thr Leu Leu
35 40 45

Pro Ser Cys Thr Gln Gly Asp Gly Glu Ala Arg Gly His His Thr Gln
50 55 60

Pro Ser Phe Trp Arg Thr Glu Met Lys Cys Pro Val Glu Ala Leu Leu
65 70 75 80

Glu His Leu Ala Thr Arg Ala Val Val Gly Arg Asn Gly Asp His Gly
85 90 95

Ala Gln Gln Glu His Arg Thr Ala Ser Glu Gly Gln Gln Gln Pro Leu
 100 105 110

Ala Glu Ser Ser Pro Trp Trp Gln Pro Pro His Gly
 115 120

<210> 48

<211> 74

<212> PRT

<213> Homo sapiens

<400> 48

Met Ala Leu Phe Ala Trp Leu Cys Leu Ser Ala Val Val Glu Ser Ser
 1 5 10 15

Ser Pro Gly Met Cys Met Ser Lys Cys Val Leu Ile Val Met Pro Arg
 20 25 30

Gln Lys Pro Leu Glu Asp Cys Cys Arg His Ala Leu Lys Met Thr Ser
 35 40 45

His Ser Ser Glu Lys Leu Gly Asp Leu Thr Pro Glu Gly Leu Lys Ser
 50 55 60

Glu Lys Ser Gln Glu His Leu Gly Phe Lys
 65 70

<210> 49

<211> 102

<212> PRT

<213> Homo sapiens

<400> 49

Met Leu Leu His Trp Leu Leu Gln Asn Glu Leu Gln Ser Ala Val Ala
 1 5 10 15

Ser Cys Leu Val Ser Ile Ser Leu Gly Lys Glu Asp Phe Leu Gln Thr
 20 25 30

Gly Cys Lys Val Lys Ser His Val Gly Val Ile His Arg Arg Glu Lys
 35 40 45

Gly Gly Ala Ile Tyr Leu Pro Asn Ser Leu Val Leu Pro Thr Ser His
 50 55 60

Trp Ile Arg Leu Ser Tyr Arg Asn Arg His Arg Gly Phe Ile Leu Trp
 65 70 75 80

Thr Leu Met Ser Thr Trp Glu Ala Arg Cys His Gly Pro Cys Val Met
 85 90 95

Phe Asp Phe Asn Gln Lys
 100

<210> 50

<211> 51
 <212> PRT
 <213> Homo sapiens

<400> 50
 Met Ile Ile Cys Leu Ile Met Phe Tyr Phe Ile Ala Leu Ala Gly Ala
 1 5 10 15
 His Lys Arg Val Val Ile Gln Leu Arg Glu Gln Leu Ser Leu Glu Ser
 20 25 30
 Arg Asp Lys Cys Tyr Leu Ile Gln Lys Leu Thr Glu Ala Gln Arg Asp
 35 40 45
 Met Arg Asn
 50

<210> 51
 <211> 68
 <212> PRT
 <213> Homo sapiens

<400> 51
 Met Ala Thr Val Gly Leu Ser Trp Lys Lys Glu Leu Val Ile Leu Leu
 1 5 10 15
 Val Gly Pro Gly Ala Ala Ala Leu Gln Pro Thr His Thr Cys Cys Ser
 20 25 30
 Leu Pro Ser Leu Ser Ser Leu Phe Pro Leu Arg Leu Asn Thr Lys Thr
 35 40 45
 Ser Pro Lys Thr Thr Arg Thr Asn Leu Tyr Leu Leu Ser Ile Ala Pro
 50 55 60
 Leu Ser His Leu
 65

<210> 52
 <211> 85
 <212> PRT
 <213> Homo sapiens

<400> 52
 Met Gln Val Phe Phe Leu Ser Glu Ile Gly Met Leu Trp Val Val Val
 1 5 10 15
 Lys Met Ala His Ser Ala Met Leu Val Ser His Thr Gln Asp Pro Thr
 20 25 30
 Pro Ser Arg Trp Pro Cys Ser Leu Ala Gln Ser Ile Leu Leu Thr Cys
 35 40 45
 Ser Pro Gln His Arg Phe Ser Leu Glu Arg Lys Ile Gln Leu Pro Pro
 50 55 60

Arg Arg Trp Trp Ala Glu Gly Arg Glu Gly Cys Trp Val Arg Glu Arg
65 70 75 80

Val Gly Glu Arg Thr
85

<210> 53

<211> 83

<212> PRT

<213> Homo sapiens

<400> 53

Met Ala Ser Cys Gly Leu Thr Gly Ala Ser Leu Pro Pro Cys Cys Cys
1 5 10 15

Ser Ser Phe Leu Ala Ala Leu Lys Ser Met Phe Trp Gly Leu Gly Ser
20 25 30

Leu Leu Trp Ser Leu Val Gly Ile Leu Ser Pro Ile Ser Ser Cys Phe
35 40 45

Cys Val Tyr Thr Cys Leu Thr Pro Gly Ser Ser Ser Leu Phe Pro Arg
50 55 60

Ala Val Thr Gln Lys Leu Glu Gln Ser Val Pro Thr Lys Ala Leu Trp
65 70 75 80

Gly Trp Met

<210> 54

<211> 157

<212> PRT

<213> Homo sapiens

<400> 54

Met Gln Ala Pro Arg Ala Ala Leu Val Phe Ala Leu Val Ile Ala Leu
1 5 10 15

Val Pro Val Gly Arg Gly Asn Tyr Glu Glu Leu Glu Asn Ser Gly Asp
20 25 30

Thr Thr Val Glu Ser Glu Arg Pro Asn Lys Val Thr Ile Pro Ser Thr
35 40 45

Phe Ala Ala Val Thr Ile Lys Glu Thr Leu Asn Ala Asn Ile Asn Ser
50 55 60

Thr Asn Phe Ala Pro Asp Glu Asn Gln Leu Glu Phe Ile Leu Met Val
65 70 75 80

Leu Ile Pro Leu Ile Leu Leu Val Leu Leu Leu Ser Val Val Phe
85 90 95

Leu Ala Thr Tyr Tyr Lys Arg Lys Arg Thr Lys Gln Glu Pro Ser Ser
100 105 110

Gln Gly Ser Gln Ser Ala Leu Gln Thr Cys Glu Tyr Tyr Pro Lys Thr
 115 120 125

Cys Leu Gln Val Gly Val Gly Leu Glu Lys Glu Gln Arg Cys Phe Lys
 130 135 140

Ile Lys Gln Gln Gly Leu His Ile Ile Val Ser Asp Lys
 145 150 155

<210> 55

<211> 57

<212> PRT

<213> Homo sapiens

<400> 55

Met Cys Glu Gly Trp Leu His Pro Ile Phe Leu Tyr Cys Cys Phe Trp
 1 5 10 15

Thr Thr Thr Pro Ser Cys Ser Ala Phe Gly Ile Leu Asp Leu His Gln
 20 25 30

Gln His Pro Ile Pro Thr Pro Ser Ser Trp Phe Ser Gly Leu Cys Pro
 35 40 45

Trp Thr Glu Leu His His Cys Leu Arg
 50 55

<210> 56

<211> 47

<212> PRT

<213> Homo sapiens

<400> 56

Met Ser His Gly Ser Gln Pro Phe Leu Leu Leu Ser Leu His Ile
 1 5 10 15

Leu Ile Leu Ala Gly Ser Phe Leu Leu Phe Ser Pro Tyr Thr Ala Lys
 20 25 30

Pro Ser Phe Ser Ser Ser Phe Ile Val Phe Pro Arg Ala Glu Met
 35 40 45

<210> 57

<211> 67

<212> PRT

<213> Homo sapiens

<400> 57

Met Val Leu Gly Phe Val Leu Leu Leu Phe Asn Met Gly Gly Thr Phe
 1 5 10 15

Ser Asp Gly Arg Lys Glu Arg Arg Arg Thr Thr Phe Leu Arg Cys Cys
 20 25 30

Asp Phe Ile Met Lys Pro Ser Pro Ala Leu Ile Leu Val Thr Ser Val
 35 40 45

Gly Pro Val Leu Leu Gln Asn Ala Ser Trp Val Ser Val Cys Arg Thr
 50 55 60

Leu Leu Ser
 65

<210> 58

<211> 43

<212> PRT

<213> Homo sapiens

<400> 58

Met Tyr Phe Phe Phe Phe Leu Thr Phe Leu Ala Leu Trp Val Met Gly
 1 5 10 15

Thr Thr Ala Met Ala Ser Pro Phe Phe Met Gly Tyr Gln Leu Gln Tyr
 20 25 30

Gly Pro Gln Cys Cys Ser Gly His Phe Asn Asp
 35 40

<210> 59

<211> 201

<212> PRT

<213> Homo sapiens

<400> 59

Met Val Thr Leu Ala Glu Leu Leu Val Leu Leu Ala Ala Leu Leu Ala
 1 5 10 15

Thr Val Ser Gly Tyr Phe Val Ser Ile Asp Ala His Ala Glu Glu Cys
 20 25 30

Phe Phe Glu Arg Val Thr Ser Gly Thr Lys Met Gly Leu Ile Phe Glu
 35 40 45

Val Ala Glu Gly Gly Phe Leu Asp Ile Asp Val Glu Ile Thr Gly Pro
 50 55 60

Asp Asn Lys Gly Ile Tyr Lys Gly Asp Arg Glu Ser Ser Gly Lys Tyr
 65 70 75 80

Thr Phe Ala Ala His Met Asp Gly Thr Tyr Lys Phe Cys Phe Ser Asn
 85 90 95

Arg Met Ser Thr Met Thr Pro Lys Ile Val Met Phe Thr Ile Asp Ile
 100 105 110

Gly Glu Ala Pro Lys Gly Gln Asp Met Glu Thr Glu Ala His Gln Asn
 115 120 125

Lys Leu Glu Glu Met Ile Asn Glu Leu Ala Val Ala Met Thr Ala Val
 130 135 140

Lys His Glu Gln Glu Tyr Met Glu Val Arg Glu Arg Ile His Arg Ala
145 150 155 160

Ile Asn Asp Asn Thr Asn Ser Arg Val Val Leu Trp Ser Phe Phe Glu
165 170 175

Ala Leu Val Leu Val Ala Met Thr Leu Gly Gln Ile Tyr Tyr Leu Lys
180 185 190

Arg Phe Phe Glu Val Arg Arg Val Val
195 200

<210> 60
<211> 73
<212> PRT
<213> Homo sapiens

<400> 60
Met Glu Leu Leu Lys Cys Ser Trp Gln Leu Phe Phe Ser Phe Leu Thr
1 5 10 15

His Cys Ser Ala Ser Thr Ile Val Trp Leu Phe Val Gln His Arg Leu
20 25 30

Ser Gln Ser His Asn Lys Pro Phe Phe Gly Ile Leu Gln Arg Cys His
35 40 45

Ser Trp His Leu Asn Arg Glu Ser Phe Val Pro Asn Gln Ser Phe Ser
50 55 60

Ile Tyr Glu Ser Cys Ser Ile Arg Lys
65 70

<210> 61
<211> 47
<212> PRT
<213> Homo sapiens

<400> 61
Met Arg Leu Ser Arg Ala Ala His Asn Leu Gln Thr Ile Leu Tyr Ser
1 5 10 15

Val Phe Cys Leu Cys Leu His Val Ala Met Met Asp Arg Ser Pro Ser
20 25 30

Ser Ile Leu Ala Leu Trp Arg Ser Gly Ser Cys Ser Val Glu Ile
35 40 45

<210> 62
<211> 51
<212> PRT
<213> Homo sapiens

<400> 62

Met Leu Thr Leu Thr His Phe Val Ser Tyr Asp Tyr Phe Ile Val Lys
 1 5 10 15

Arg Leu Val Gly Trp Leu Val Gly Trp Leu Val Cys Phe Val Leu Val
 20 25 30

Ser Pro Phe Ile His Ser Leu Ser Thr Asn Tyr Asn Phe Leu Cys Phe
 35 40 45

Met Cys Gly
 50

<210> 63

<211> 587

<212> PRT

<213> Homo sapiens

<400> 63

Met Trp Arg Leu Gly Cys Leu Ile Trp Glu Val Phe Asn Gly Pro Leu
 1 5 10 15

Pro Arg Ala Ala Ala Leu Arg Asn Pro Gly Lys Ile Pro Lys Thr Leu
 20 25 30

Val Pro His Tyr Cys Glu Leu Val Gly Ala Asn Pro Lys Val Arg Pro
 35 40 45

Asn Pro Ala Arg Phe Leu Gln Asn Cys Arg Ala Pro Gly Gly Phe Met
 50 55 60

Ser Asn Arg Phe Val Glu Thr Asn Leu Phe Leu Glu Glu Ile Gln Ile
 65 70 75 80

Lys Glu Pro Ala Glu Lys Gln Lys Phe Phe Gln Glu Leu Ser Lys Ser
 85 90 95

Leu Asp Ala Phe Pro Glu Asp Phe Cys Arg His Lys Val Leu Pro Gln
 100 105 110

Leu Leu Thr Ala Phe Glu Phe Gly Asn Ala Gly Ala Val Val Leu Thr
 115 120 125

Pro Leu Phe Lys Val Gly Lys Phe Leu Ser Ala Glu Glu Tyr Gln Gln
 130 135 140

Lys Ile Ile Pro Val Val Val Lys Met Phe Ser Ser Thr Asp Arg Ala
 145 150 155 160

Met Arg Ile Arg Leu Leu Gln Gln Met Glu Gln Phe Ile Gln Tyr Leu
 165 170 175

Asp Glu Pro Thr Val Asn Thr Gln Ile Phe Pro His Val Val His Gly
 180 185 190

Phe Leu Asp Thr Asn Pro Ala Ile Arg Glu Gln Thr Val Lys Ser Met
 195 200 205

Leu Leu Leu Ala Pro Lys Leu Asn Glu Ala Asn Leu Asn Val Glu Leu
 210 215 220
 Met Lys His Phe Ala Arg Leu Gln Ala Lys Asp Glu Gln Gly Pro Ile
 225 230 235 240
 Arg Cys Asn Thr Thr Val Cys Leu Gly Lys Ile Gly Ser Tyr Leu Ser
 245 250 255
 Ala Ser Thr Arg His Arg Val Leu Thr Ser Ala Phe Ser Arg Ala Thr
 260 265 270
 Arg Asp Pro Phe Ala Pro Ser Arg Val Ala Gly Val Leu Gly Phe Ala
 275 280 285
 Ala Thr His Asn Leu Tyr Ser Met Asn Asp Cys Ala Gln Lys Ile Leu
 290 295 300
 Pro Val Leu Cys Gly Leu Thr Val Asp Pro Glu Lys Ser Val Arg Asp
 305 310 315 320
 Gln Ala Phe Lys Ala Ile Arg Ser Phe Leu Ser Lys Leu Glu Ser Val
 325 330 335
 Ser Glu Asp Pro Thr Gln Leu Glu Glu Val Glu Lys Asp Val His Ala
 340 345 350
 Ala Ser Ser Pro Gly Met Gly Gly Ala Ala Ala Ser Trp Ala Gly Trp
 355 360 365
 Ala Val Thr Gly Val Ser Ser Leu Thr Ser Lys Leu Ile Arg Ser His
 370 375 380
 Pro Thr Thr Ala Pro Thr Glu Thr Asn Ile Pro Gln Arg Pro Thr Pro
 385 390 395 400
 Glu Gly His Trp Glu Thr Gln Glu Glu Asp Lys Asp Thr Ala Glu Asp
 405 410 415
 Ser Ser Thr Ala Asp Arg Trp Asp Asp Glu Asp Trp Gly Ser Leu Glu
 420 425 430
 Gln Glu Ala Glu Ser Val Leu Ala Gln Gln Asp Asp Trp Ser Thr Gly
 435 440 445
 Gly Gln Val Ser Arg Ala Ser Gln Val Ser Asn Ser Asp His Lys Ser
 450 455 460
 Ser Lys Ser Pro Glu Ser Asp Trp Ser Ser Trp Glu Ala Glu Gly Ser
 465 470 475 480
 Trp Glu Gln Gly Trp Gln Glu Pro Ser Ser Gln Glu Pro Pro Pro Asp
 485 490 495
 Gly Thr Arg Leu Ala Ser Glu Tyr Asn Trp Gly Gly Pro Glu Ser Ser
 500 505 510
 Asp Lys Gly Asp Pro Phe Ala Thr Leu Ser Ala Arg Pro Ser Thr Gln

515

520

525

Pro Arg Pro Asp Ser Trp Gly Glu Asp Asn Trp Glu Gly Leu Glu Thr
 530 535 540

Asp Ser Arg Gln Val Lys Ala Glu Leu Ala Arg Lys Lys Arg Glu Glu
 545 550 555 560

Arg Arg Arg Glu Met Glu Ala Lys Arg Ala Glu Arg Lys Val Ala Lys
 565 570 575

Gly Pro Met Lys Leu Gly Ala Arg Lys Leu Asp
 580 585

<210> 64

<211> 76

<212> PRT

<213> Homo sapiens

<400> 64

Met Val Val Asp Leu Phe Phe Tyr Leu Leu Cys Ile Phe Leu Val Leu
 1 5 10 15

Trp Val Leu Glu Ala Met Ile Lys His Leu Met Tyr Ser Asp Met Ser
 20 25 30

Ala Leu Ile Ala Ser Phe Ser Ser Phe Leu Asn Cys Ile His Tyr Phe
 35 40 45

Gln Asn Arg Tyr Arg Tyr Ser Val Pro Pro Phe Glu Leu Leu Ala Cys
 50 55 60

Ser Cys Phe Pro Leu Ser Pro Lys Gln Gly Phe Phe
 65 70 75

<210> 65

<211> 146

<212> PRT

<213> Homo sapiens

<400> 65

Met Ala Ala Leu Leu Leu Leu Pro Leu Leu Leu Leu Pro Leu Leu
 1 5 10 15

Leu Leu Lys Leu His Leu Trp Pro Gln Leu Arg Trp Leu Pro Ala Ala
 20 25 30

Thr Ala Ala Arg Gly Ala Leu Glu Lys Ala Ser Gly Gln Arg Arg Glu
 35 40 45

Pro Glu Met Gln Arg Pro Glu Ala Ala Arg Ser Leu Pro Glu Gly Thr
 50 55 60

Val Pro Pro Glu Val Glu Glu Pro Pro Pro Leu Cys His Leu Glu Gln
 65 70 75 80

Leu Trp Arg Cys Ser Ser Pro Leu Ala Gln Ser Phe Cys Gly Ser Gly
 85 90 95

Ser Gly Trp Pro Arg Pro Ala Cys Ala Leu Pro Leu Cys Pro Pro Pro
 100 105 110

Cys Ala Gly Ala Pro Cys Cys Thr Ala Ser Ala Ala Ala Arg Ala
 115 120 125

Arg Trp Cys Trp Arg Gln Ser Phe Trp Ser Pro Trp Ser Arg Thr Cys
 130 135 140

Pro Pro
 145

<210> 66
 <211> 56
 <212> PRT
 <213> Homo sapiens

<400> 66
 Met Arg Leu Phe Ser Gln Met Leu Lys Ser Trp Met Ala Leu Phe Met
 1 5 10 15

Arg Asn Val Trp Leu Glu Met Thr Ile Ala Thr Ala His Thr Val Ser
 20 25 30

Thr Val His Trp Arg Lys Trp Thr Lys Met Leu Val Gln Ser Pro Thr
 35 40 45

Gln Val Lys Met Asn Val Ser Gln
 50 55

<210> 67
 <211> 45
 <212> PRT
 <213> Homo sapiens

<400> 67
 Met Leu Ser Ala Ser Ile Trp Leu Val Leu Ile Ile Ser Arg Gly Asn
 1 5 10 15

Ala Arg Gln Lys Val Lys Leu Cys Phe Leu Leu Met Leu Leu Ala Thr
 20 25 30

Trp Lys Arg Arg Arg Gly Arg Gly Lys Arg Gly Arg Ser
 35 40 45

<210> 68
 <211> 201
 <212> PRT
 <213> Homo sapiens

<400> 68
 Met Val Thr Leu Ala Glu Leu Leu Val Leu Leu Ala Ala Leu Leu Ala

1	5	10	15
Thr Val Ser Gly Tyr Phe Val Ser Ile Asp Ala His Ala Glu Glu Cys	20	25	30
Phe Phe Glu Arg Val Thr Ser Gly Thr Lys Met Gly Leu Ile Phe Glu	35	40	45
Val Ala Glu Gly Gly Phe Leu Asp Ile Asp Val Glu Ile Thr Gly Pro	50	55	60
Asp Asn Lys Gly Ile Tyr Lys Gly Asp Arg Glu Ser Ser Gly Lys Tyr	65	70	75
Thr Phe Ala Ala His Met Asp Gly Thr Tyr Lys Phe Cys Phe Ser Asn	85	90	95
Arg Met Ser Thr Met Thr Pro Lys Ile Val Met Phe Thr Ile Asp Ile	100	105	110
Gly Glu Ala Pro Lys Gly Gln Asp Met Glu Thr Glu Ala His Gln Asn	115	120	125
Lys Leu Glu Glu Met Ile Asn Glu Leu Ala Val Ala Met Thr Ala Val	130	135	140
Lys His Glu Gln Glu Tyr Met Glu Val Arg Glu Arg Ile His Arg Ala	145	150	155
Ile Asn Asp Asn Thr Asn Ser Arg Val Val Leu Trp Ser Phe Phe Glu	165	170	175
Ala Leu Val Leu Val Ala Met Thr Leu Gly Gln Ile Tyr Tyr Leu Lys	180	185	190
Arg Phe Phe Glu Val Arg Arg Val Val	195	200	

<210> 69

<211> 201

<212> PRT

<213> Homo sapiens

<400> 69

Met Val Thr Leu Ala Glu Leu Leu Val Leu Leu Ala Ala Leu Leu Ala	1	5	10	15
Thr Val Ser Gly Tyr Phe Val Ser Ile Asp Ala His Ala Glu Glu Cys	20	25	30	
Phe Phe Glu Arg Val Thr Ser Gly Thr Lys Met Gly Leu Ile Phe Glu	35	40	45	
Val Ala Glu Gly Gly Phe Leu Asp Ile Asp Val Glu Ile Thr Gly Pro	50	55	60	
Asp Asn Lys Gly Ile Tyr Lys Gly Asp Arg Glu Ser Ser Gly Lys Tyr				

65		70		75		80
Thr Phe Ala Ala His Met Asp Gly Thr Tyr Lys Phe Cys Phe Ser Asn						
	85			90		95
Arg Met Ser Thr Met Thr Pro Lys Ile Val Met Phe Thr Ile Asp Ile						
	100			105		110
Gly Glu Ala Pro Lys Gly Gln Asp Met Glu Thr Glu Ala His Gln Asn						
	115			120		125
Lys Leu Glu Glu Met Ile Asn Glu Leu Ala Val Ala Met Thr Ala Val						
	130			135		140
Lys His Glu Gln Glu Tyr Met Glu Val Arg Glu Arg Ile His Arg Ala						
	145			150		155
Ile Asn Asp Asn Thr Asn Ser Arg Val Val Leu Trp Ser Phe Phe Glu						
		165		170		175
Ala Leu Val Leu Val Ala Met Thr Leu Gly Gln Ile Tyr Tyr Leu Lys						
	180			185		190
Arg Phe Phe Glu Val Arg Arg Val Val						
	195			200		

<210> 70
 <211> 12
 <212> PRT
 <213> Homo sapiens

 <400> 70
 Met Gly Ser Ser Leu Ala Phe Ile Leu Phe Leu Pro
 1 5 10

<210> 71
 <211> 144
 <212> PRT
 <213> Homo sapiens

 <220>
 <221> SITE
 <222> (138)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 71
 Met Val Thr Leu Ala Glu Leu Leu Val Leu Leu Ala Ala Leu Leu Ala
 1 5 10 15

 Thr Val Ser Gly Tyr Phe Val Ser Ile Asp Ala His Ala Glu Glu Cys
 20 25 30

 Phe Phe Glu Arg Val Thr Ser Gly Thr Lys Met Gly Leu Ile Phe Glu
 35 40 45

 Val Ala Glu Gly Gly Phe Leu Asp Ile Asp Val Glu Val Arg Ala Ser

50

55

60

Cys Pro Gln Leu Arg Leu Gly Arg Val Ala Thr Arg Gly Leu Val Ala
 65 70 75 80

Pro Gly Thr Gly Ala Gly Pro Val Trp Gly Val Gly Leu Glu Val Ala
 85 90 95

Val Arg Val Leu Glu Lys Pro Arg Pro Pro Pro Pro Ala Pro Pro Arg
 100 105 110

Pro Arg Arg Pro Pro Asn Gly Pro Phe Ser Arg Asp Leu Pro Gly Phe
 115 120 125

Arg Asp Pro Leu Gly Ala Pro Ser Ala Xaa Leu Val Ala Leu Gly Phe
 130 135 140

<210> 72

<211> 30

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (28)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 72

Met Arg Leu Phe Ser Gln Met Leu Lys Ser Trp Met Ala Leu Phe Met
 1 5 10 15

Arg Asn Val Trp Leu Glu Met Thr Ile Ala Thr Xaa Ile Gln
 20 25 30

<210> 73

<211> 19

<212> PRT

<213> Homo sapiens

<400> 73

His Phe Asn Val Leu Ala Phe Pro Cys Asn Gln Phe Gly Gln Gln Glu
 1 5 10 15

Pro Asp Ser

<210> 74

<211> 381

<212> PRT

<213> Homo sapiens

<400> 74

Thr Arg Lys Ser Arg Pro Lys Arg Gly Gly His Arg Leu Trp Val Pro
 1 5 10 15
 Gly Pro Arg Asp Ser Arg Phe Ser Leu Arg Ala Met Ala Pro Ala Lys
 20 25 30
 Ala Thr Asn Val Val Arg Leu Leu Leu Gly Ser Thr Ala Leu Trp Leu
 35 40 45
 Ser Gln Leu Gly Ser Gly Thr Val Ala Ala Ser Lys Ser Val Thr Ala
 50 55 60
 His Leu Ala Ala Lys Trp Pro Glu Thr Pro Leu Leu Leu Glu Ala Ser
 65 70 75 80
 Glu Phe Met Ala Glu Glu Ser Asn Glu Lys Phe Trp Gln Phe Leu Glu
 85 90 95
 Thr Val Gln Glu Leu Ala Ile Tyr Lys Gln Thr Glu Ser Asp Tyr Ser
 100 105 110
 Tyr Tyr Asn Leu Ile Leu Lys Lys Ala Gly Gln Phe Leu Asp Asn Leu
 115 120 125
 His Ile Asn Leu Leu Lys Phe Ala Phe Ser Ile Arg Ala Tyr Ser Pro
 130 135 140
 Ala Ile Gln Met Phe Gln Gln Ile Ala Ala Asp Glu Pro Pro Pro Asp
 145 150 155 160
 Gly Cys Asn Ala Phe Val Val Ile His Lys Lys His Thr Cys Lys Ile
 165 170 175
 Asn Glu Ile Lys Lys Leu Leu Lys Lys Ala Ala Ser Arg Thr Arg Pro
 180 185 190
 Tyr Leu Phe Lys Gly Asp His Lys Phe Pro Thr Asn Lys Glu Asn Leu
 195 200 205
 Pro Val Val Ile Leu Tyr Ala Glu Met Gly Thr Arg Thr Phe Ser Ala
 210 215 220
 Phe His Lys Val Leu Ser Glu Lys Ala Gln Asn Glu Glu Ile Leu Tyr
 225 230 235 240
 Val Leu Arg His Tyr Ile Gln Lys Pro Ser Ser Arg Lys Met Tyr Leu
 245 250 255
 Ser Gly Tyr Gly Val Glu Leu Ala Ile Lys Ser Thr Glu Tyr Lys Ala
 260 265 270
 Leu Asp Asp Thr Gln Val Lys Thr Val Thr Asn Thr Thr Val Glu Asp
 275 280 285
 Glu Thr Glu Thr Asn Glu Val Gln Gly Phe Leu Phe Gly Lys Leu Lys
 290 295 300
 Glu Ile Tyr Ser Asp Leu Arg Asp Asn Leu Thr Ala Phe Gln Lys Tyr

305 310 315 320
 Leu Ile Glu Ser Asn Lys Gln Met Met Pro Leu Lys Val Trp Glu Leu
 325 330 335
 Gln Asp Leu Ser Phe Gln Ala Ala Ser Gln Ile Met Ser Ala Pro Val
 340 345 350
 Tyr Asp Ala Ile Lys Leu Met Lys Asp Ile Ser Gln Asn Phe Pro Ile
 355 360 365
 Lys Ala Arg Val Gln Met Ile Gly Asn Val Leu Ile Gly
 370 375 380

<210> 75
 <211> 75
 <212> PRT
 <213> Homo sapiens

<400> 75
 Gly Thr Ser Pro Ser Ser Leu Gln Ser Phe Ile His Gly Val Thr Ser
 1 5 10 15
 Glu Ala Phe Ala Val Pro Phe Phe Met Ile Ile Cys Leu Ile Met Phe
 20 25 30
 Tyr Phe Ile Ala Leu Ala Gly Ala His Lys Arg Val Val Ile Gln Leu
 35 40 45
 Arg Glu Gln Leu Ser Leu Glu Ser Arg Asp Lys Cys Tyr Leu Ile Gln
 50 55 60
 Lys Leu Thr Glu Ala Gln Arg Asp Met Arg Asn
 65 70 75

<210> 76
 <211> 115
 <212> PRT
 <213> Homo sapiens

<400> 76
 Phe Gly Thr Arg Lys Pro Glu Pro Lys Ser Val Val Pro Ser Gly Pro
 1 5 10 15
 Val Leu Ala Asn Val Ser Met Phe Gly Glu Lys Gln Gly Thr Met Gln
 20 25 30
 Val Phe Phe Leu Ser Glu Ile Gly Met Leu Trp Val Val Val Lys Met
 35 40 45
 Ala His Ser Ala Met Leu Val Ser His Thr Gln Asp Pro Thr Pro Ser
 50 55 60
 Arg Trp Pro Cys Ser Leu Ala Gln Ser Ile Leu Leu Thr Cys Ser Pro
 65 70 75 80

Gln His Arg Phe Ser Leu Glu Arg Lys Ile Gln Leu Pro Pro Arg Arg
 85 90 95

Trp Trp Ala Glu Gly Arg Glu Gly Cys Trp Val Arg Glu Arg Val Gly
 100 105 110

Glu Arg Thr
 115

<210> 77

<211> 185

<212> PRT

<213> Homo sapiens

<400> 77

His Ala Ser Gly Lys Cys Ser Arg Phe Arg Glu Ala Ala Ala Arg Arg
 1 5 10 15

Ser Ile Leu Ser Ala Pro Leu Pro Arg Arg Ala Asp Met Gln Ala Pro
 20 25 30

Arg Ala Ala Leu Val Phe Ala Leu Val Ile Ala Leu Val Pro Val Gly
 35 40 45

Arg Gly Asn Tyr Glu Glu Leu Glu Asn Ser Gly Asp Thr Thr Val Glu
 50 55 60

Ser Glu Arg Pro Asn Lys Val Thr Ile Pro Ser Thr Phe Ala Ala Val
 65 70 75 80

Thr Ile Lys Glu Thr Leu Asn Ala Asn Ile Asn Ser Thr Asn Phe Ala
 85 90 95

Pro Asp Glu Asn Gln Leu Glu Phe Ile Leu Met Val Leu Ile Pro Leu
 100 105 110

Ile Leu Leu Val Leu Leu Leu Leu Ser Val Val Phe Leu Ala Thr Tyr
 115 120 125

Tyr Lys Arg Lys Arg Thr Lys Gln Glu Pro Ser Ser Gln Gly Ser Gln
 130 135 140

Ser Ala Leu Gln Thr Cys Glu Tyr Tyr Pro Lys Thr Cys Leu Gln Val
 145 150 155 160

Gly Val Gly Leu Glu Lys Glu Gln Arg Cys Phe Lys Ile Lys Gln Gln
 165 170 175

Gly Leu His Ile Ile Val Ser Asp Lys
 180 185

<210> 78

<211> 618

<212> PRT

<213> Homo sapiens

<400> 78

Gly Thr Ser Leu His Gly Arg Arg Val Arg Gly Leu Ser Phe Leu Val
 1 5 10 15
 Asn Asp Cys Ser Gly Arg Val Val Arg Glu Lys Trp Ser Ala Asp Met
 20 25 30
 Trp Arg Leu Gly Cys Leu Ile Trp Glu Val Phe Asn Gly Pro Leu Pro
 35 40 45
 Arg Ala Ala Ala Leu Arg Asn Pro Gly Lys Ile Pro Lys Thr Leu Val
 50 55 60
 Pro His Tyr Cys Glu Leu Val Gly Ala Asn Pro Lys Val Arg Pro Asn
 65 70 75 80
 Pro Ala Arg Phe Leu Gln Asn Cys Arg Ala Pro Gly Gly Phe Met Ser
 85 90 95
 Asn Arg Phe Val Glu Thr Asn Leu Phe Leu Glu Glu Ile Gln Ile Lys
 100 105 110
 Glu Pro Ala Glu Lys Gln Lys Phe Phe Gln Glu Leu Ser Lys Ser Leu
 115 120 125
 Asp Ala Phe Pro Glu Asp Phe Cys Arg His Lys Val Leu Pro Gln Leu
 130 135 140
 Leu Thr Ala Phe Glu Phe Gly Asn Ala Gly Ala Val Val Leu Thr Pro
 145 150 155 160
 Leu Phe Lys Val Gly Lys Phe Leu Ser Ala Glu Glu Tyr Gln Gln Lys
 165 170 175
 Ile Ile Pro Val Val Val Lys Met Phe Ser Ser Thr Asp Arg Ala Met
 180 185 190
 Arg Ile Arg Leu Leu Gln Gln Met Glu Gln Phe Ile Gln Tyr Leu Asp
 195 200 205
 Glu Pro Thr Val Asn Thr Gln Ile Phe Pro His Val Val His Gly Phe
 210 215 220
 Leu Asp Thr Asn Pro Ala Ile Arg Glu Gln Thr Val Lys Ser Met Leu
 225 230 235 240
 Leu Leu Ala Pro Lys Leu Asn Glu Ala Asn Leu Asn Val Glu Leu Met
 245 250 255
 Lys His Phe Ala Arg Leu Gln Ala Lys Asp Glu Gln Gly Pro Ile Arg
 260 265 270
 Cys Asn Thr Thr Val Cys Leu Gly Lys Ile Gly Ser Tyr Leu Ser Ala
 275 280 285
 Ser Thr Arg His Arg Val Leu Thr Ser Ala Phe Ser Arg Ala Thr Arg
 290 295 300

Asp Pro Phe Ala Pro Ser Arg Val Ala Gly Val Leu Gly Phe Ala Ala
 305 310 315 320
 Thr His Asn Leu Tyr Ser Met Asn Asp Cys Ala Gln Lys Ile Leu Pro
 325 330 335
 Val Leu Cys Gly Leu Thr Val Asp Pro Glu Lys Ser Val Arg Asp Gln
 340 345 350
 Ala Phe Lys Ala Ile Arg Ser Phe Leu Ser Lys Leu Glu Ser Val Ser
 355 360 365
 Glu Asp Pro Thr Gln Leu Glu Glu Val Glu Lys Asp Val His Ala Ala
 370 375 380
 Ser Ser Pro Gly Met Gly Gly Ala Ala Ala Ser Trp Ala Gly Trp Ala
 385 390 395 400
 Val Thr Gly Val Ser Ser Leu Thr Ser Lys Leu Ile Arg Ser His Pro
 405 410 415
 Thr Thr Ala Pro Thr Glu Thr Asn Ile Pro Gln Arg Pro Thr Pro Glu
 420 425 430
 Gly His Trp Glu Thr Gln Glu Glu Asp Lys Asp Thr Ala Glu Asp Ser
 435 440 445
 Ser Thr Ala Asp Arg Trp Asp Asp Glu Asp Trp Gly Ser Leu Glu Gln
 450 455 460
 Glu Ala Glu Ser Val Leu Ala Gln Gln Asp Asp Trp Ser Thr Gly Gly
 465 470 475 480
 Gln Val Ser Arg Ala Ser Gln Val Ser Asn Ser Asp His Lys Ser Ser
 485 490 495
 Lys Ser Pro Glu Ser Asp Trp Ser Ser Trp Glu Ala Glu Gly Ser Trp
 500 505 510
 Glu Gln Gly Trp Gln Glu Pro Ser Ser Gln Glu Pro Pro Pro Asp Gly
 515 520 525
 Thr Arg Leu Ala Ser Glu Tyr Asn Trp Gly Gly Pro Glu Ser Ser Asp
 530 535 540
 Lys Gly Asp Pro Phe Ala Thr Leu Ser Ala Arg Pro Ser Thr Gln Pro
 545 550 555 560
 Arg Pro Asp Ser Trp Gly Glu Asp Asn Trp Glu Gly Leu Glu Thr Asp
 565 570 575
 Ser Arg Gln Val Lys Ala Glu Leu Ala Arg Lys Lys Arg Glu Glu Arg
 580 585 590
 Arg Arg Glu Met Glu Ala Lys Arg Ala Glu Arg Lys Val Ala Lys Gly
 595 600 605
 Pro Met Lys Leu Gly Ala Arg Lys Leu Asp

610

615

<210> 79
 <211> 198
 <212> PRT
 <213> Homo sapiens

<400> 79

Arg Ser Gly Ile Pro Gly Ser Thr His Ala Ser Ala Arg Ala Pro Trp
 1 5 10 15

Lys Glu Lys Ser Gln Leu Glu Arg Ala Ala Leu Gly Phe Arg Lys Gly
 20 25 30

Gly Ser Gly Met Phe Ala Ser Gly Trp Asn Gln Thr Val Pro Ile Glu
 35 40 45

Glu Ala Gly Ser Met Ala Ala Leu Leu Leu Leu Pro Leu Leu Leu Leu
 50 55 60

Leu Pro Leu Leu Leu Leu Lys Leu His Leu Trp Pro Gln Leu Arg Trp
 65 70 75 80

Leu Pro Ala Ala Thr Ala Ala Arg Gly Ala Leu Glu Lys Ala Ser Gly
 85 90 95

Gln Arg Arg Glu Pro Glu Met Gln Arg Pro Glu Ala Ala Arg Ser Leu
 100 105 110

Pro Glu Gly Thr Val Pro Pro Glu Val Glu Glu Pro Pro Pro Leu Cys
 115 120 125

His Leu Glu Gln Leu Trp Arg Cys Ser Ser Pro Leu Ala Gln Ser Phe
 130 135 140

Cys Gly Ser Gly Ser Gly Trp Pro Arg Pro Ala Cys Ala Leu Pro Leu
 145 150 155 160

Cys Pro Pro Pro Cys Ala Gly Ala Pro Cys Cys Thr Ala Ser Ala Ala
 165 170 175

Ala Ala Arg Ala Arg Trp Cys Trp Arg Gln Ser Phe Trp Ser Pro Trp
 180 185 190

Ser Arg Thr Cys Pro Pro
 195

<210> 80
 <211> 458
 <212> PRT
 <213> Homo sapiens

<400> 80

Pro Val Arg Asn Ser Arg Val Asp Pro Arg Val Arg Ala Arg Ser Leu
 1 5 10 15

Glu Gly Glu Val Ser Ala Arg Thr Ser Gly Pro Arg Phe Ser Glu Gly
 20 25 30
 Arg Ile Arg Asp Val Cys Glu Arg Leu Glu Pro Asp Gly Ala Asp Arg
 35 40 45
 Gly Ser Gly Leu His Gly Cys Pro Pro Ala Ala Ala Pro Ala Ala Val
 50 55 60
 Ala Thr Ala Ala Ala Ala Glu Ala Thr Pro Leu Ala Ala Val Ala Leu
 65 70 75 80
 Ala Ser Gly Gly Asp Ser Gly Glu Gly Ser Ala Gly Glu Gly Glu Arg
 85 90 95
 Ala Ala Pro Gly Ala Gly Asp Ala Ala Ala Gly Ser Gly Ala Glu Phe
 100 105 110
 Ala Gly Gly Asp Gly Ala Ala Arg Gly Gly Gly Ala Ala Ala Pro Leu
 115 120 125
 Ser Pro Gly Ala Thr Val Ala Leu Leu Leu Pro Ala Gly Pro Glu Phe
 130 135 140
 Leu Trp Leu Trp Phe Gly Leu Ala Lys Ala Gly Leu Arg Thr Ala Phe
 145 150 155 160
 Val Pro Thr Ala Leu Arg Arg Gly Pro Leu Leu His Cys Leu Arg Ser
 165 170 175
 Cys Gly Ala Arg Ala Leu Val Leu Ala Pro Glu Phe Leu Glu Ser Leu
 180 185 190
 Glu Pro Asp Leu Pro Ala Leu Arg Ala Met Gly Leu His Leu Trp Ala
 195 200 205
 Ala Gly Pro Gly Thr His Pro Ala Gly Ile Ser Asp Leu Leu Ala Glu
 210 215 220
 Val Ser Ala Glu Val Asp Gly Pro Val Pro Gly Tyr Leu Ser Ser Pro
 225 230 235 240
 Gln Ser Ile Thr Asp Thr Cys Leu Tyr Ile Phe Thr Ser Gly Thr Thr
 245 250 255
 Gly Leu Pro Lys Ala Ala Arg Ile Ser His Leu Lys Ile Leu Gln Cys
 260 265 270
 Gln Gly Phe Tyr Gln Leu Cys Gly Val His Gln Glu Asp Val Ile Tyr
 275 280 285
 Leu Ala Leu Pro Leu Tyr His Met Ser Gly Ser Leu Leu Gly Ile Val
 290 295 300
 Gly Cys Met Gly Ile Gly Ala Thr Val Val Leu Lys Ser Lys Phe Ser
 305 310 315 320
 Ala Gly Gln Phe Trp Glu Asp Cys Gln Gln His Arg Val Thr Val Phe

325

330

335

Gln Tyr Ile Gly Glu Leu Cys Arg Tyr Leu Val Asn Gln Pro Pro Ser
 340 345 350

Lys Ala Glu Arg Gly His Lys Val Arg Leu Ala Val Gly Ser Gly Leu
 355 360 365

Arg Pro Asp Thr Trp Glu Arg Phe Val Arg Arg Phe Gly Pro Leu Gln
 370 375 380

Val Leu Glu Thr Tyr Gly Leu Thr Glu Gly Asn Val Ala Thr Ile Asn
 385 390 395 400

Tyr Thr Gly Gln Arg Gly Ala Val Gly Arg Ala Ser Trp Leu Tyr Lys
 405 410 415

Val Arg Gly Arg Glu Glu Thr Glu Asn Pro Trp Asn Ser Arg Gly Leu
 420 425 430

Ala Gly Glu Gly Ala His Val Thr Ala Met Ile Gln Tyr Pro Gly Leu
 435 440 445

Pro Phe Pro Ser Ile Ser Ser Pro Ser Pro
 450 455

<210> 81

<211> 377

<212> PRT

<213> Homo sapiens

<400> 81

Ser Gly Gly Asp Ser Gly Glu Gly Ser Ala Gly Glu Gly Glu Arg Ala
 1 5 10 15

Ala Pro Gly Ala Gly Asp Ala Ala Ala Gly Ser Gly Ala Glu Phe Ala
 20 25 30

Gly Gly Asp Gly Ala Ala Arg Gly Gly Gly Ala Ala Ala Pro Leu Ser
 35 40 45

Pro Gly Ala Thr Val Ala Leu Leu Leu Pro Ala Gly Pro Glu Phe Leu
 50 55 60

Trp Leu Trp Phe Gly Leu Ala Lys Ala Gly Leu Arg Thr Ala Phe Val
 65 70 75 80

Pro Thr Ala Leu Arg Arg Gly Pro Leu Leu His Cys Leu Arg Ser Cys
 85 90 95

Gly Ala Arg Ala Leu Val Leu Ala Pro Glu Phe Leu Glu Ser Leu Glu
 100 105 110

Pro Asp Leu Pro Ala Leu Arg Ala Met Gly Leu His Leu Trp Ala Ala
 115 120 125

Gly Pro Gly Thr His Pro Ala Gly Ile Ser Asp Leu Leu Ala Glu Val

130	135	140
Ser Ala Glu Val Asp Gly Pro Val Pro Gly Tyr Leu Ser Ser Pro Gln 145 150 155 160		
Ser Ile Thr Asp Thr Cys Leu Tyr Ile Phe Thr Ser Gly Thr Thr Gly 165 170 175		
Leu Pro Lys Ala Ala Arg Ile Ser His Leu Lys Ile Leu Gln Cys Gln 180 185 190		
Gly Phe Tyr Gln Leu Cys Gly Val His Gln Glu Asp Val Ile Tyr Leu 195 200 205		
Ala Leu Pro Leu Tyr His Met Ser Gly Ser Leu Leu Gly Ile Val Gly 210 215 220		
Cys Met Gly Ile Gly Ala Thr Val Val Leu Lys Ser Lys Phe Ser Ala 225 230 235 240		
Gly Gln Phe Trp Glu Asp Cys Gln Gln His Arg Val Thr Val Phe Gln 245 250 255		
Tyr Ile Gly Glu Leu Cys Arg Tyr Leu Val Asn Gln Pro Pro Ser Lys 260 265 270		
Ala Glu Arg Gly His Lys Val Arg Leu Ala Val Gly Ser Gly Leu Arg 275 280 285		
Pro Asp Thr Trp Glu Arg Phe Val Arg Arg Phe Gly Pro Leu Gln Val 290 295 300		
Leu Glu Thr Tyr Gly Leu Thr Glu Gly Asn Val Ala Thr Ile Asn Tyr 305 310 315 320		
Thr Gly Gln Arg Gly Ala Val Gly Arg Ala Ser Trp Leu Tyr Lys Val 325 330 335		
Arg Gly Arg Glu Glu Thr Glu Asn Pro Trp Asn Ser Arg Gly Leu Ala 340 345 350		
Gly Glu Gly Ala His Val Thr Ala Met Ile Gln Tyr Pro Gly Leu Pro 355 360 365		
Phe Pro Ser Ile Ser Ser Pro Ser Pro 370 375		

<210> 82

<211> 257

<212> PRT

<213> Homo sapiens

<400> 82

Met Gly Leu His Leu Trp Ala Ala Gly Pro Gly Thr His Pro Ala Gly
1 5 10 15

Ile Ser Asp Leu Leu Ala Glu Val Ser Ala Glu Val Asp Gly Pro Val

20

25

30

Pro Gly Tyr Leu Ser Ser Pro Gln Ser Ile Thr Asp Thr Cys Leu Tyr
 35 40 45

Ile Phe Thr Ser Gly Thr Thr Gly Leu Pro Lys Ala Ala Arg Ile Ser
 50 55 60

His Leu Lys Ile Leu Gln Cys Gln Gly Phe Tyr Gln Leu Cys Gly Val
 65 70 75 80

His Gln Glu Asp Val Ile Tyr Leu Ala Leu Pro Leu Tyr His Met Ser
 85 90 95

Gly Ser Leu Leu Gly Ile Val Gly Cys Met Gly Ile Gly Ala Thr Val
 100 105 110

Val Leu Lys Ser Lys Phe Ser Ala Gly Gln Phe Trp Glu Asp Cys Gln
 115 120 125

Gln His Arg Val Thr Val Phe Gln Tyr Ile Gly Glu Leu Cys Arg Tyr
 130 135 140

Leu Val Asn Gln Pro Pro Ser Lys Ala Glu Arg Gly His Lys Val Arg
 145 150 155 160

Leu Ala Val Gly Ser Gly Leu Arg Pro Asp Thr Trp Glu Arg Phe Val
 165 170 175

Arg Arg Phe Gly Pro Leu Gln Val Leu Glu Thr Tyr Gly Leu Thr Glu
 180 185 190

Gly Asn Val Ala Thr Ile Asn Tyr Thr Gly Gln Arg Gly Ala Val Gly
 195 200 205

Arg Ala Ser Trp Leu Tyr Lys Val Arg Gly Arg Glu Glu Thr Glu Asn
 210 215 220

Pro Trp Asn Ser Arg Gly Leu Ala Gly Glu Gly Ala His Val Thr Ala
 225 230 235 240

Met Ile Gln Tyr Pro Gly Leu Pro Phe Pro Ser Ile Ser Ser Pro Ser
 245 250 255

Pro

<210> 83

<211> 34

<212> PRT

<213> Homo sapiens

<400> 83

Phe Ala Met Met Ser Pro Gln Glu Ser Gln Phe Gly Thr Pro Arg Gly
 1 5 10 15

Thr Val Trp Pro His Leu Gln Val Gly Gly Val Leu Val Gly Trp Ala

20

25

30

Gly Cys

<210> 84

<211> 112

<212> PRT

<213> Homo sapiens

<400> 84

Pro Leu Thr Pro Ser Phe Arg Ser Leu Leu Ser Asp Arg Trp Lys Gly
 1 5 10 15

Glu Asn Val Ala Thr Thr Glu Val Ala Glu Val Phe Glu Ala Leu Asp
 20 25 30

Phe Leu Gln Glu Val Asn Val Tyr Gly Val Thr Val Pro Gly His Glu
 35 40 45

Gly Arg Ala Gly Met Ala Ala Leu Val Leu Arg Pro Pro His Ala Leu
 50 55 60

Asp Leu Met Gln Leu Tyr Thr His Val Ser Glu Asn Leu Pro Pro Tyr
 65 70 75 80

Ala Arg Pro Arg Phe Leu Arg Leu Gln Ala Val Gly Ala Tyr Leu Pro
 85 90 95

Leu Thr Thr Ala Arg Tyr Ser Ala Leu Leu Ala Gly Asn Leu Arg Ile
 100 105 110

<210> 85

<211> 422

<212> PRT

<213> Homo sapiens

<400> 85

Met Pro Val Pro Glu Ile Gln Asp Gln Val Ser Cys Gln Ala His Val
 1 5 10 15

Asn Glu Ile Ile Lys Thr Ile Ile Ile His His Glu Thr Ile Phe Pro
 20 25 30

Asp Ala Lys Glu Leu Asp Gly Pro Val Tyr Glu Lys Cys Met Ala Gly
 35 40 45

Asp Asp Tyr Cys Asp Ser Pro Tyr Ser Glu His Gly Thr Leu Glu Glu
 50 55 60

Val Asp Gln Asp Ala Gly Thr Glu Pro His Thr Ser Glu Asp Glu Cys
 65 70 75 80

Glu Pro Ile Glu Ala Ile Ala Lys Phe Asp Tyr Val Gly Arg Ser Ala
 85 90 95
 Arg Glu Leu Ser Phe Lys Lys Gly Ala Ser Leu Leu Leu Tyr His Arg
 100 105 110
 Ala Ser Glu Asp Trp Trp Glu Gly Arg His Asn Gly Ile Asp Gly Leu
 115 120 125
 Val Pro His Gln Tyr Ile Val Val Gln Asp Met Asp Asp Thr Phe Ser
 130 135 140
 Asp Thr Leu Ser Gln Lys Ala Asp Ser Glu Ala Ser Ser Gly Pro Val
 145 150 155 160
 Thr Glu Asp Lys Ser Ser Ser Lys Asp Met Asn Ser Pro Thr Asp Arg
 165 170 175
 His Pro Asp Gly Tyr Leu Ala Arg Gln Arg Lys Arg Gly Glu Pro Pro
 180 185 190
 Pro Pro Val Arg Arg Pro Gly Arg Thr Ser Asp Gly His Cys Pro Leu
 195 200 205
 His Pro Pro His Ala Leu Ser Asn Ser Ser Val Asp Leu Gly Ser Pro
 210 215 220
 Ser Leu Ala Ser His Pro Arg Gly Leu Leu Gln Asn Arg Gly Leu Asn
 225 230 235 240
 Asn Asp Ser Pro Glu Arg Arg Arg Arg Pro Gly His Gly Ser Leu Thr
 245 250 255
 Asn Ile Ser Arg His Asp Ser Leu Lys Lys Ile Asp Ser Pro Pro Ile
 260 265 270
 Arg Arg Ser Thr Ser Ser Gly Gln Tyr Thr Gly Phe Asn Asp His Lys
 275 280 285
 Pro Leu Asp Pro Glu Thr Ile Ala Gln Asp Ile Glu Glu Thr Met Asn
 290 295 300
 Thr Ala Leu Asn Glu Leu Arg Glu Leu Glu Arg Gln Ser Thr Ala Lys
 305 310 315 320
 His Ala Pro Asp Val Val Leu Asp Thr Leu Glu Gln Val Lys Asn Ser
 325 330 335
 Pro Thr Pro Ala Thr Ser Thr Glu Ser Leu Ser Pro Leu His Asn Val
 340 345 350
 Ala Leu Arg Ser Ser Glu Pro Gln Ile Arg Arg Ser Thr Ser Ser Ser
 355 360 365
 Ser Asp Thr Met Ser Thr Phe Lys Pro Met Val Ala Pro Arg Met Gly
 370 375 380
 Val Gln Leu Lys Pro Pro Ala Leu Arg Pro Lys Pro Ala Val Leu Pro

385 390 395 400

Lys Thr Asn Pro Thr Ile Gly Pro Ala Pro Pro Pro Gln Gly Pro Thr
 405 410 415

Asp Lys Ser Cys Thr Met
 420

<210> 86
 <211> 150
 <212> PRT
 <213> Homo sapiens

<400> 86
 Ser Trp His Arg Arg Thr Gly Ile Gly Asp Trp Gly Gly Trp Gly Gln
 1 5 10 15

Lys Ala Leu Gly Lys Val Thr Pro Leu Leu Thr Leu Val Thr Leu Pro
 20 25 30

Gly Glu Pro Gly Leu Leu Val Ala Pro Val Ser Gln Gln Ser Pro Phe
 35 40 45

Leu Gly Tyr Ala Gly Gly Pro Glu Leu Ala Gln Gly Lys Leu Leu Lys
 50 55 60

Asp Val Phe Arg Pro Gly Asp Val Phe Phe Asn Thr Gly Asp Leu Leu
 65 70 75 80

Val Cys Asp Asp Gln Gly Phe Leu Arg Phe His Asp Arg Thr Gly Asp
 85 90 95

Thr Phe Arg Tyr Leu Ser Ile Thr Gly Phe Ser Ser Trp Thr Ser Asp
 100 105 110

Leu Cys Asp Pro Lys Leu Leu Asn Leu Asn Ser Leu Ile Cys His Leu
 115 120 125

Asn Leu Gly Pro Lys Leu Ile Ser His Ser Gln Ile Ser Pro Phe His
 130 135 140

Pro Cys Asp Thr Asp Leu
 145 150